assume that the Section 102 rejections were intended to be 35 USC Section 102(e) rejections and submit the following responsive remarks.

Neither Holzapfel nor Goers discloses a rotary profile dressing tool. As illustrated by the publications filed with Applicants Amendment of October 10, 2000, rotary profile dressing tools are tools designed for refurbishing the grinding surface of abrasive grinding wheels. Claim 1 recites that the rotary profile dressing tools have "a core and an abrasive rim around at least one surface of the periphery of the core." Applicants' Figure 1 shows how a rotary profile dressing tool is used to refurbish the complex, profiled grinding face of a grinding wheel (i.e., the perimeter face, and not the sides of the wheel). One can see clearly from Figure 1 that it is the abrasive rim at the ***periphery*** of the core that is doing the dressing operation on the grinding face of the wheel being dressed. Applicants' Figures 2-5 show how the abrasive rim extends to the edge of the periphery of the core.

In contrast, both Holzapfel and Goers teach conditioning tools used to refurbish or dress a non-profiled polishing surface of polymeric polishing pads of the sort used in Chemical Mechanical Planarization (CMP) operations for manufacturing wafers used in integrated circuit components for electronic applications. Neither reference discloses or suggests a tool having an abrasive rim free of a backing element. The conditioning tools of Goers have "a particle free zone 10...provided along the peripheral edge of the conditioning disk 2 to ensure adequate lateral support for the abrasive particles near the edge of the disk." See col. 4, lines 61-64 and Figures 1 and 4 of Goers. Figures 5 and 9 of Holzapfel illustrate conditioning rings having "cutting elements" or segments of brazed abrasive grain along the periphery of the substrate that are interrupted by abrasive free zones. Both references are concerned with dressing the flat polishing surface of a polymeric polishing pad to release used abrasive slurry and debris from the pad. Thus, neither reference discloses or suggests the rotary profile dressing tools that are claimed by Applicants and used for refurbishing the profile of complex grinding wheels.

Turning to the rejection of claims 4-7 and 9 under Section 103(a) over Goers or Holzapfel, neither reference teaches the use of copper or nickel in the brazing material (or the corrosion resistant material of Goers) because these metals are highly undesirable contaminants in CMP processes. A bronze alloy braze simply cannot be used. In sharp contrast, such alloys are desirable embodiments of the rotary profile dressing tools of Applicants invention because they provide a

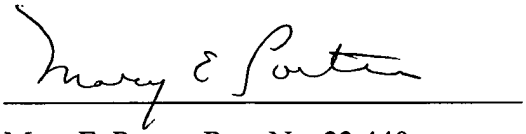
superior bond for abrasive grain being used to dress the grinding face of an abrasive grinding wheel. Neither reference suggests the abrasive rim of claims 1, 3-7 and 9-10 wherein the rim is self-supporting without a backing element, as illustrated in Figure 4. In fact, the references teach away from this embodiment as they stress the need for full retention of all abrasive grains by the conditioning tool and leave all or part of the perimeter of the supporting core free of abrasive grain to give added support to the abrasives grain that is bonded to inner portions of the core.

Furthermore, one skilled in the art of abrasives technology would not look to CMP conditioning tools for direction in designing rotary profile dressing tools and vice-versa. The requirements and critical operational aspects of the two manufacturing operations bear scant resemblance to one another and possibilities of success in borrowing tools from one to use in the other are minimal. For all of these reasons, claims 4-7 and 9 are not obvious over the teachings of the cited references.

CONCLUSIONS

In view of these remarks, Applicants respectfully request an allowance of all claims under examination herein.

Respectfully submitted,



Mary E. Porter, Reg. No. 33,440
Attorney for Applicant
Phone No. 508-795-2555
Fax No. 508-795-2653

January 21, 2005
Norton Company
One New Bond Street
Number 15138
Worcester, MA 01615
#30249.05